

Integrated Geospatial Information Framework

Advancing Geospatial Information Management at Home and Abroad



UN·IGIF

INTEGRATED GEOSPATIAL
INFORMATION FRAMEWORK

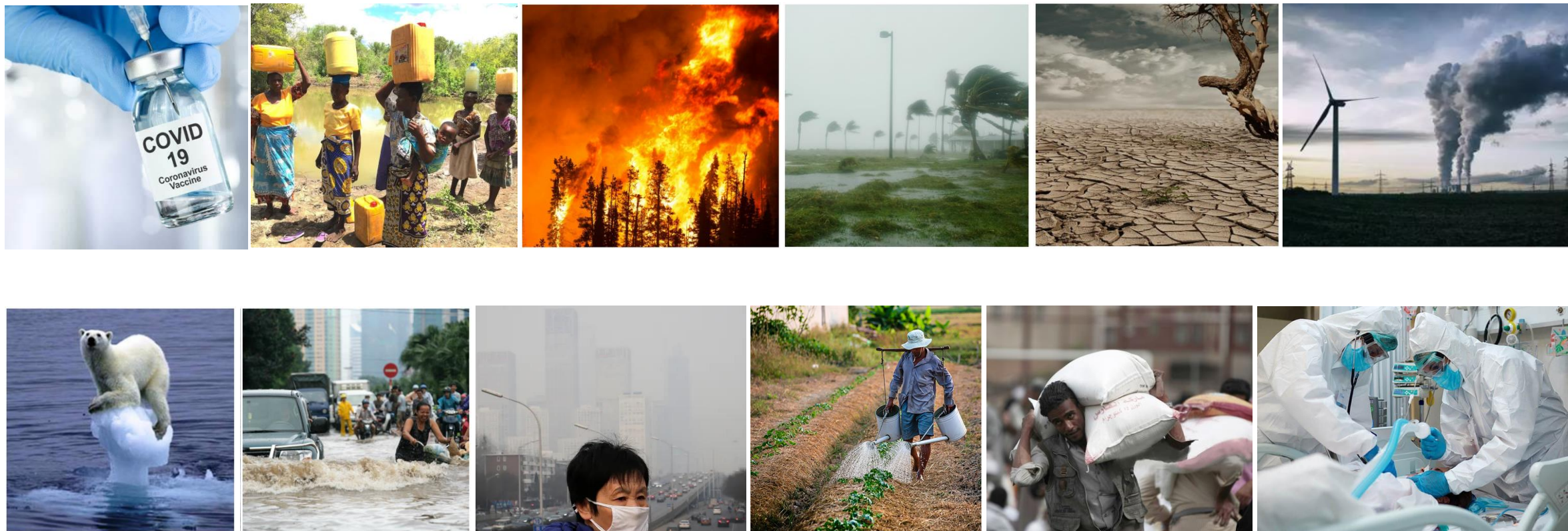
Our World Today

We are more physically and digitally connected than ever before in our history.

- Commerce
- Internet
- Migration
- Travel
- Social Media



Challenges of our Interconnected World



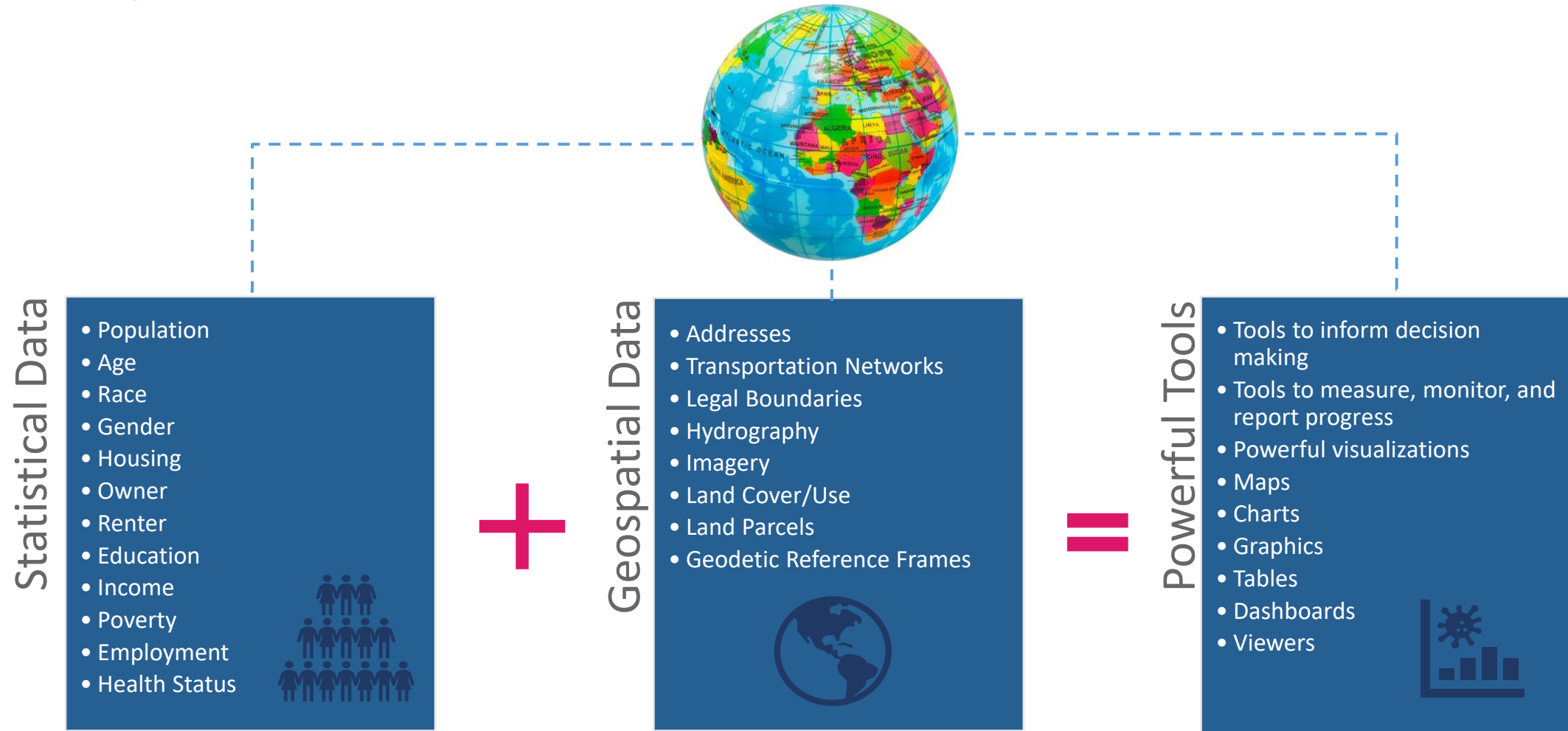
The 2030 Agenda for Sustainable Development

- Established 17 Sustainable Development Goals (SDGs)
- Brought attention and focus to the global challenges
- It was a universal call to action
- Some progress has been made since 2015... but not enough
- Questions:
 - How can we help to achieve the SDGs by 2030?
 - How can we better and more effectively measure, monitor, and report progress on the SDGs?



Data and Technology Today

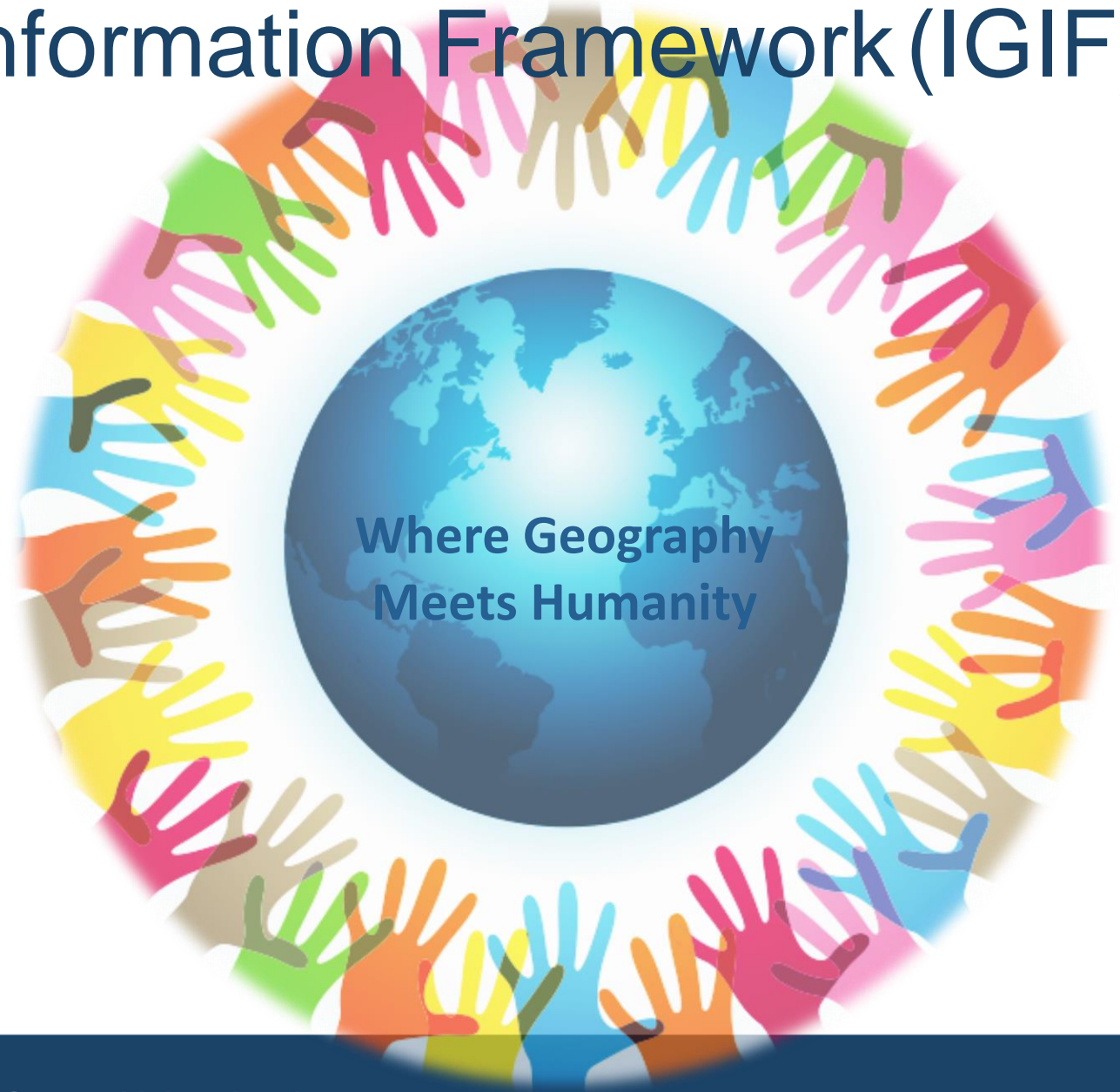
Supporting Sustainable Development



Integrated Geospatial Information Framework (IGIF)

Geo-enabling Countries for a Better Future

- IGIF is globally developed and endorsed by the UN-GGIM Committee of Experts
- Helps countries to integrate information about people and their geography
- Enables effective policy formulation, decision-making, and innovation
- Strengthens geospatial information management and related resources
- IGIF helps deliver sustainable social, economic, and environmental development – leaving no one behind

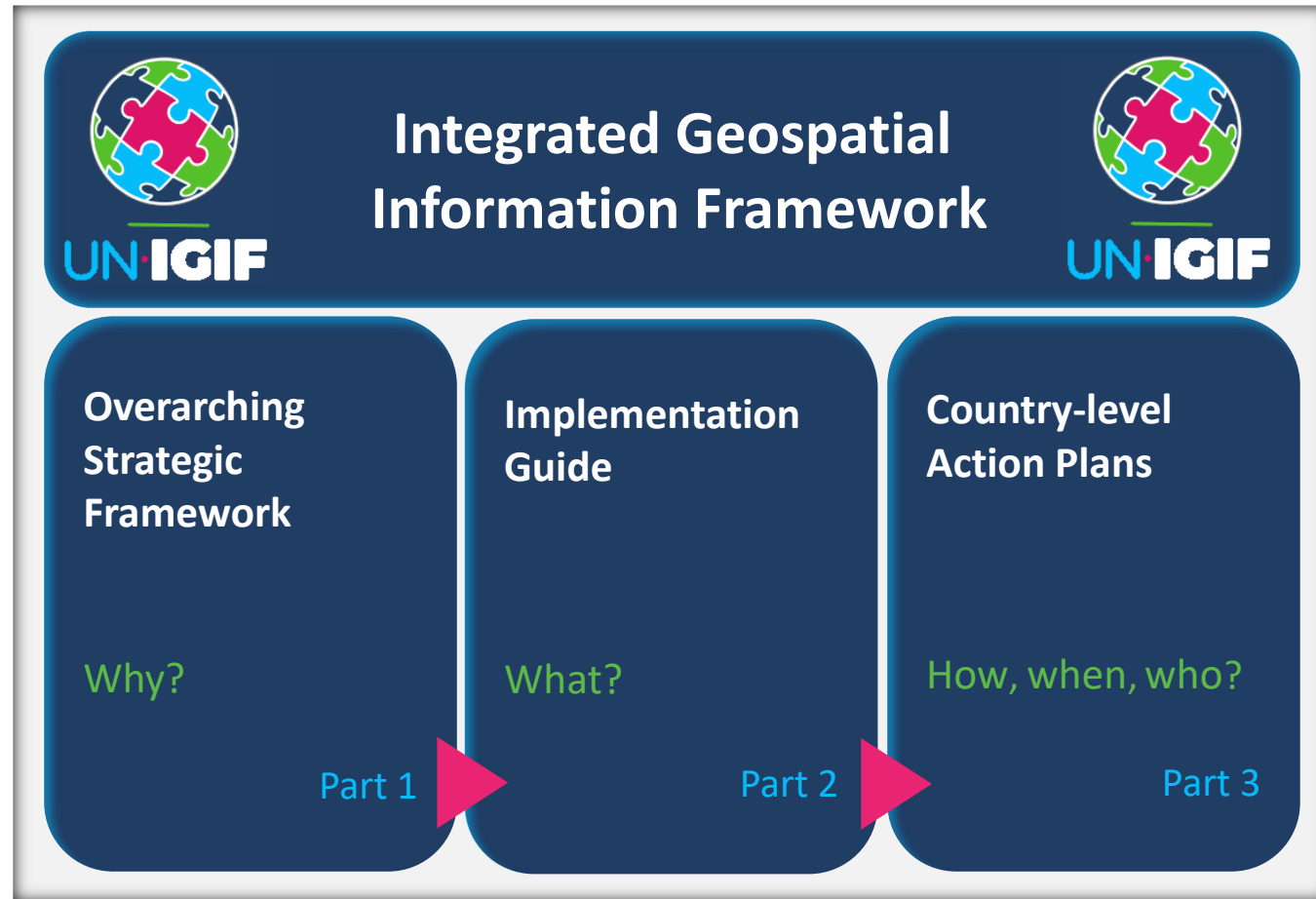


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Enabling a better future with location data

Integrated Geospatial Information Framework

Three Component Parts of the IGIF



[UNSD — UN-GGIM](#)



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Enabling a better future with location data

Part 1: Overarching Strategic Framework

Vision

Efficient use of geospatial information by all countries to effectively measure, monitor, and achieve sustainable social, economic and environmental development – **leaving no one behind**

Mission

Promote and support innovation and provide the leadership, coordination, and standards necessary to deliver integrated geospatial information that can be leveraged to find sustainable solutions for social, economic and environmental development

Strategic Drivers

Underpinning Principles

Goals

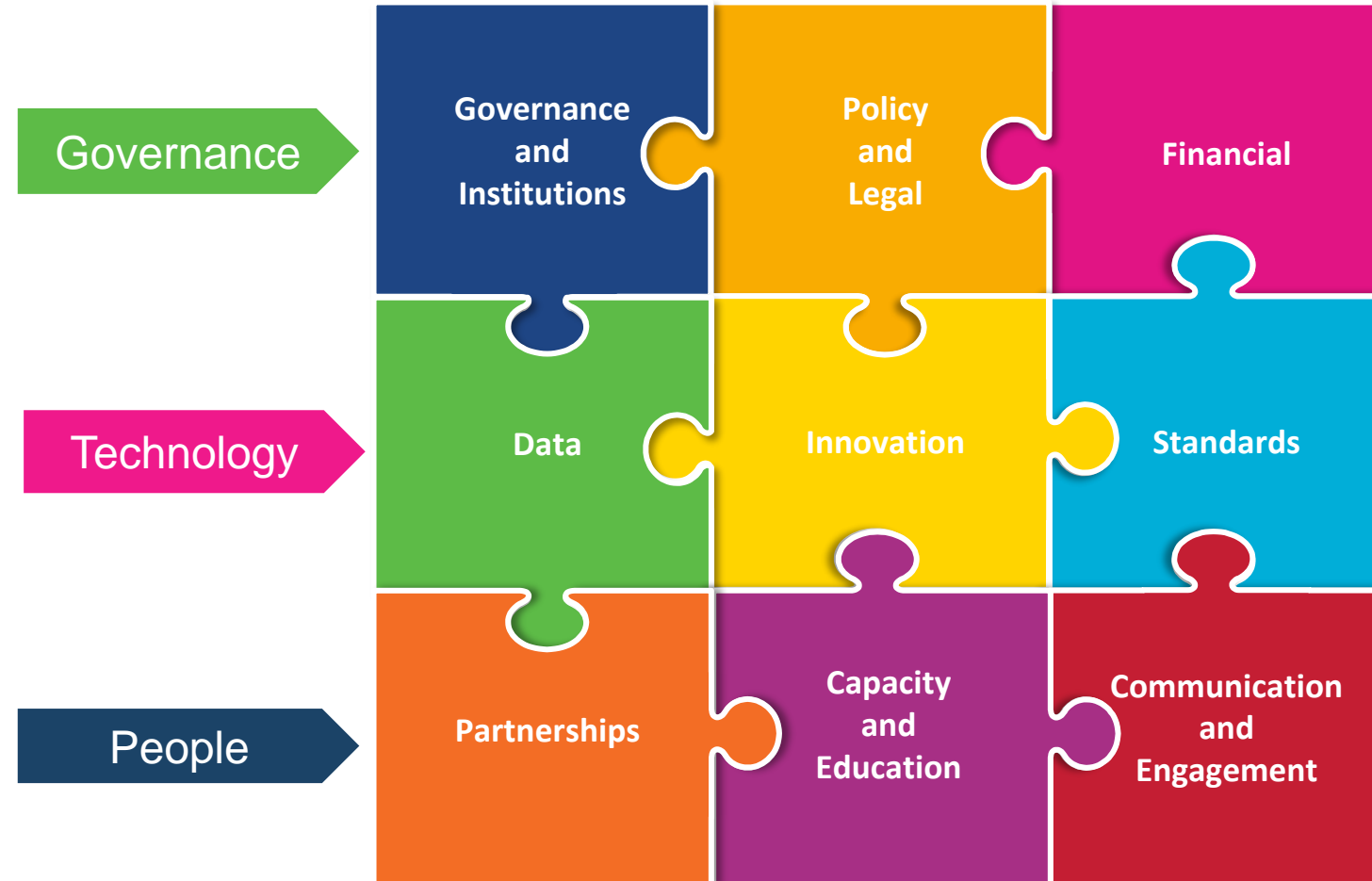
Strategic Pathways



Part 2: Implementation Guide

Nine Strategic Pathways for building a better future

- Describes what actions can be taken to strengthen geospatial information management
- Includes resource materials, good practices, guiding principles and recommended actions and outcomes
- The nine strategic pathways serve as a roadmap for implementing IGIF

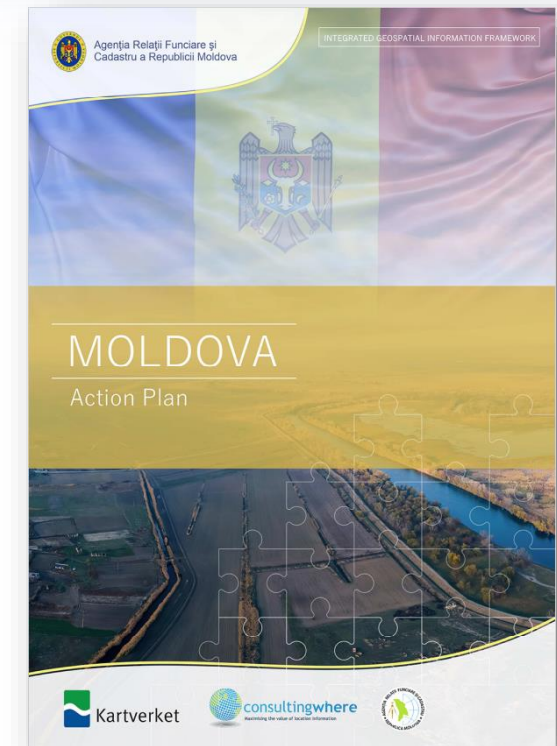


Part 3: Country-level Action Plan

Example: Moldova



- Details how the actions will be carried out, when and by whom
- Contains processes, resource materials, sample templates, and examples
- The Country-level Action Plan aligns with national priorities and circumstances



The document is available [here](#)

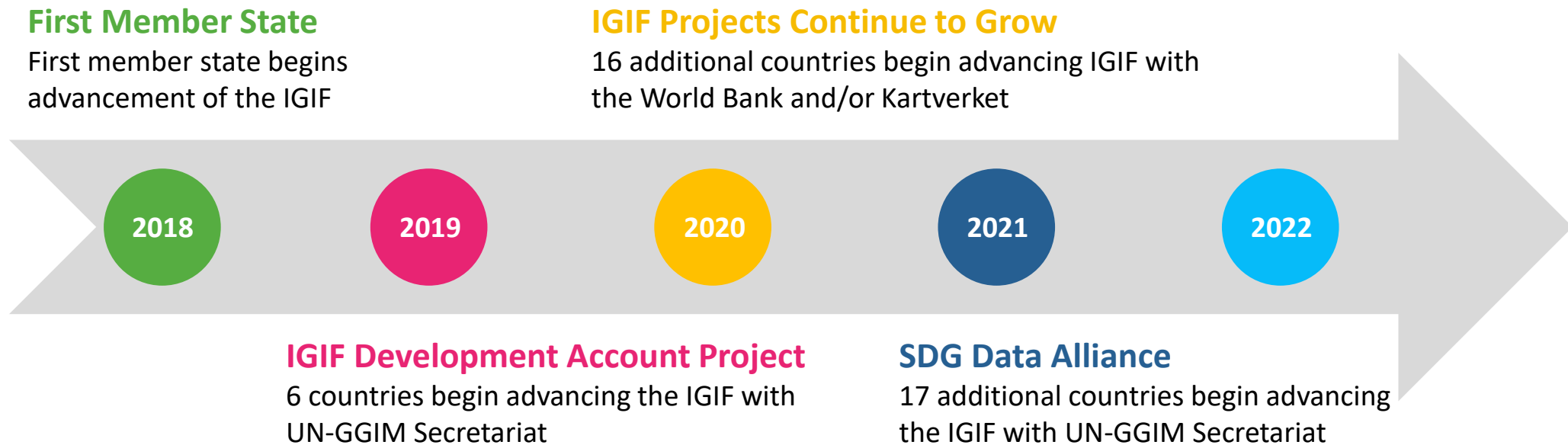


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Member States Implementing the IGIF

The Momentum Grows



Results Achieved in Member States

Member State Testimonials



IGIF in the News

Eswatini and Burkina Faso IGIF Teams are featured in the national news

8 National News Eswatini Observer Monday August 15, 2022

GOVERNMENT GOES FOR GEOSPATIAL INFORMATION

BY NONDUDUZO KUNENE
Mkhate

ESWATINI is preparing integrated geospatial information that will enable the allocation of resources in the country.

Acting Minister of Natural Resources and Energy Jabulani Mabuza met with stakeholders during an engagement workshop on Friday at the Mountain View Hotel in preparation for the establishment of the Eswatini Integrated Geospatial Information Framework (IGIF).

"The integrated geospatial information framework provides a basis and guide for developing, integrating, strengthening and maximising geospatial information management and related resources in all countries," he said.

The framework presents a forward-looking approach that creates an enabling environment where the government can coordinate, develop, strengthen and promote efficient and effective use and sharing of geospatial information for policy formulation, decision-making and innovation.

It establishes a common vision for all Governments, expresses the goals that will realise the vision, the actions that need to be implemented to achieve the goals and the outcomes and benefits necessary to support national development.

Speaking during the stakeholders' meeting, the minister said most improvements in government business have a direct impact on improving the lives of citizens. He made an example of how providing health facilities and access to education, clean water and sanitation improved the social wellbeing of citizens therefore 'good geospatial information integrated with planning, census and health data enables efficient allocation of resources'.

"The same approach allows integrated urban planning, incorporating education, employment, health and resilience," he added.

Adding the minister said economies depended on successful businesses, whether large or small.

"Geospatial information is used across sectors, from marketing through logistics to insurance, utilities to telecoms. Banks use it for fraud detection and governments to improve taxation. It is estimated that the global economic value of geospatial services is in the order of 0.2 per cent of global gross domestic product," said Mabuza.

The minister further revealed that sustainable management of the environment, particularly water sources and lakes, forestry, coastal zones, national parks and crop yield prediction, relied upon geospatial information.

"Management of climate change impact, and of scarce resources, requires geospatial information, often bringing satellite remote sensing to the fore," he said.

Mabuza said geospatial information brought better measurement of the current situation, monitoring change, planning mitigation, evidence-based decision-making, and then delivering mitigation projects. He said this was particularly important to small island developing States and other countries highly susceptible to climate change and natural disasters.

Mabuza emphasised that geospatial information was key in achieving Sustainable Development Goals (SDGs).

"Out of the 17 SDGs, more than 11 depend on the availability of geospatial information," he said.

He lauded the United Nations Global Geospatial Information Management (UN-GGIM) for supporting the Kingdom of Eswatini through the SDG data alliance to implement the country level action plan and for providing training for one of the officers in the United States of America on geospatial information management.

RESOURCE ALLOCATION:
acting Minister of Natural Resources and Energy Jabulani Mabuza. (Pics: Nonduduzo Kunene)

DRAFTERS: Stakeholders ready to start drafting the geospatial information framework.

Representatives from various sectors following the proceedings.

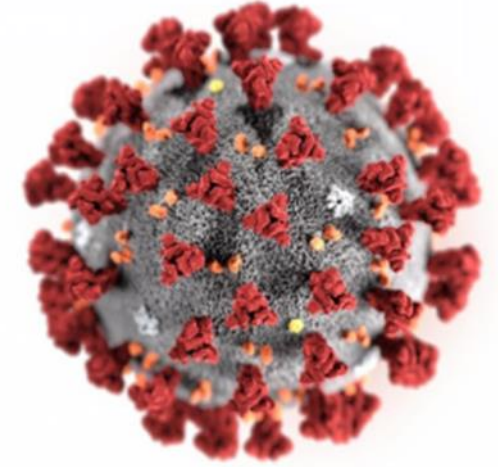


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The IGIF in Action in Central America

COVID-19 Response




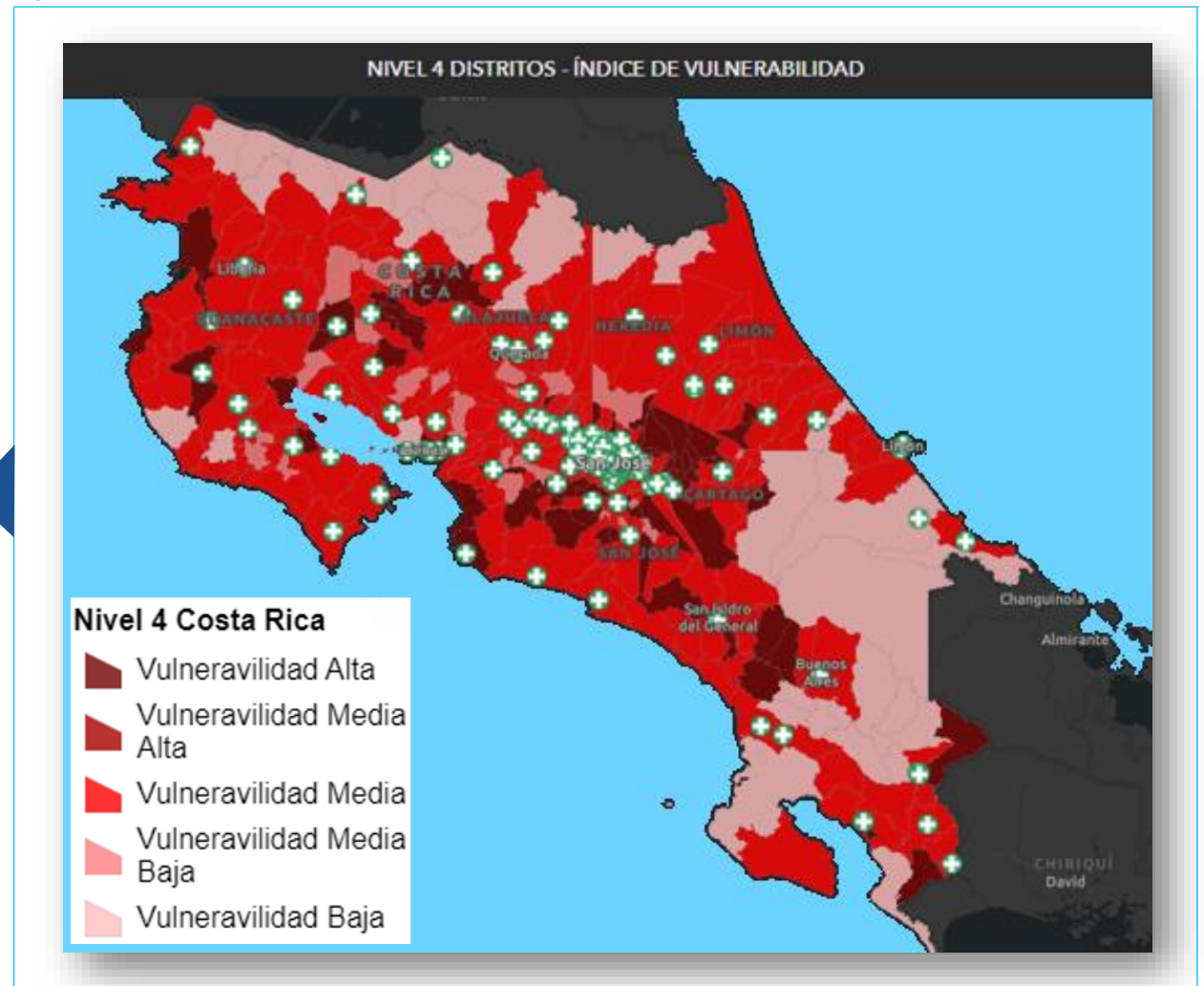
IGIF Pathways Utilized by the Countries

Partnerships	Data	Standards	Innovation	Capacity and Education	Communication and Engagement
<p>In Country Partners</p> <ul style="list-style-type: none"> Geospatial Agencies Statistical Agencies Health Ministries Emergency Response <p>Outside Partners</p> <ul style="list-style-type: none"> Pan American Institute of Geography and History UN-GGIM Americas U.S. Census Bureau National Institute of Statistics and Geography, Mexico United Nations Economic Commission for Latin America and Caribbean National Administrative Department of Statistics, Columbia 	<p>Integrated Data</p> <p>Demographic:</p> <ul style="list-style-type: none"> Population over age 60 Inter-generational risk Crowded living conditions Access to public water Poverty Income <p>Health:</p> <ul style="list-style-type: none"> Heart Disease Hypertension Diabetes Obesity Respiratory/Immune Cancer Disabilities <p>Geographic:</p> <ul style="list-style-type: none"> Geographic Boundaries Hospital/Clinic Locations Airports, ports, train stations 	<p>Common Data Structure</p> <ul style="list-style-type: none"> Data Elements Field Names Field Length Data Type Data format <p>Interoperable Data</p> <ul style="list-style-type: none"> Across government ministries and agencies Across countries <p>Data Quality Standards</p> <ul style="list-style-type: none"> Data quality review 	<p>Centralized Geospatial Data</p> <ul style="list-style-type: none"> Centralized Geoportal Accessible and useful data <p>Advanced Technology</p> <ul style="list-style-type: none"> ArcGIS Online Vulnerability Index Notebook Web Maps Dashboards StoryMaps 	<p>Building Capacity</p> <ul style="list-style-type: none"> In-person and virtual workshops User Guides Online training sessions: <ul style="list-style-type: none"> Geoportal Vulnerability Index methodology Vulnerability Index Notebook Web Maps Dashboards StoryMaps 	<p>Regular Engagement</p> <p>In Country:</p> <ul style="list-style-type: none"> Meetings with internal agencies and ministries <p>Outside Partners:</p> <ul style="list-style-type: none"> Regular meetings with project leads and all participating countries Quality review meetings Periodic Workshops Updates at regional and global meetings Communication across countries



Costa Rica Vulnerability Results

- Mapped vulnerability scores for each district
- Overlaid hospital locations 
- Created a series of powerful maps, dashboards, and StoryMaps that helped inform response to the rapidly spreading COVID-19 Pandemic in Costa Rica



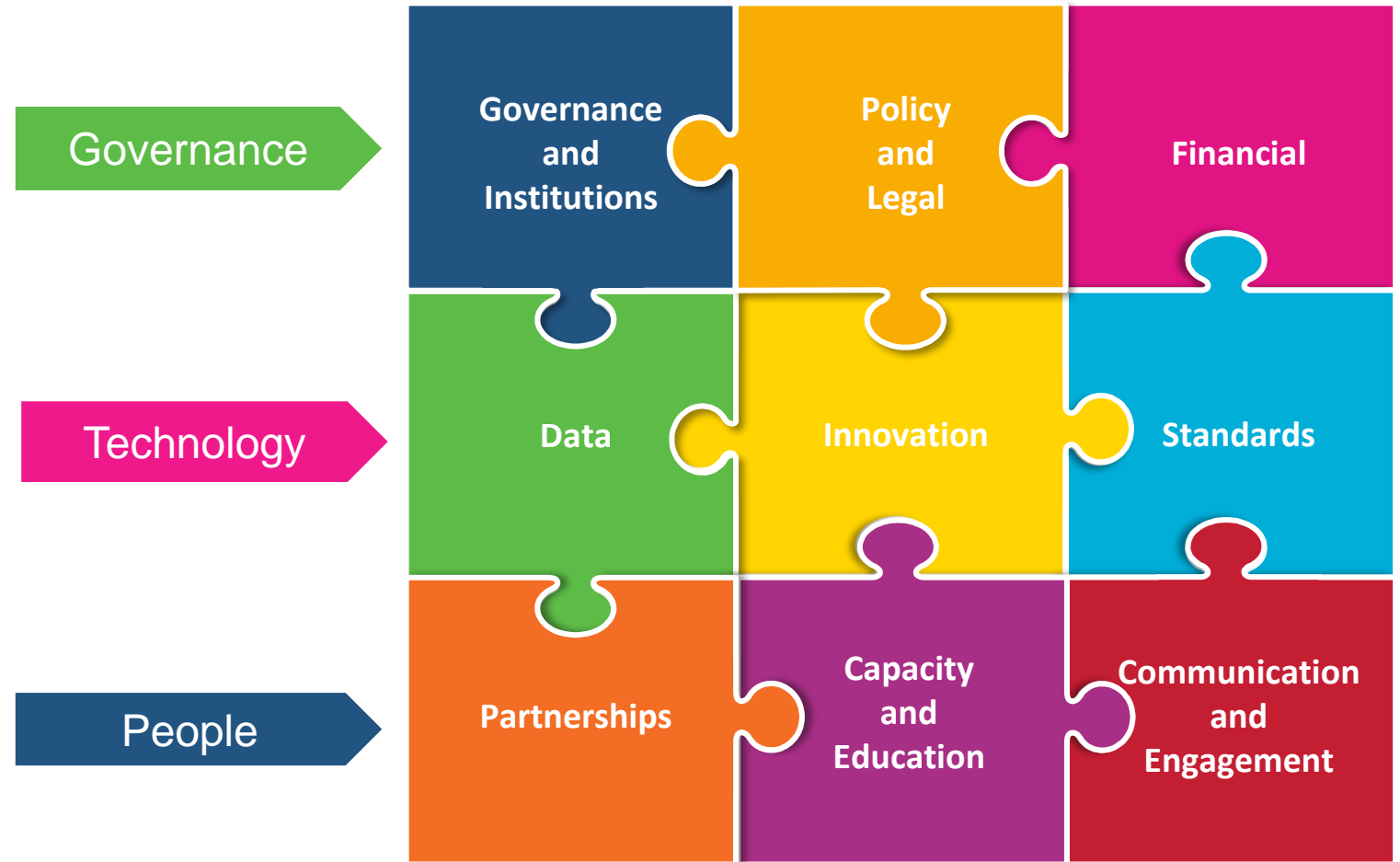
Advancing the IGIF at Home



Applying the Nine Strategic Pathways



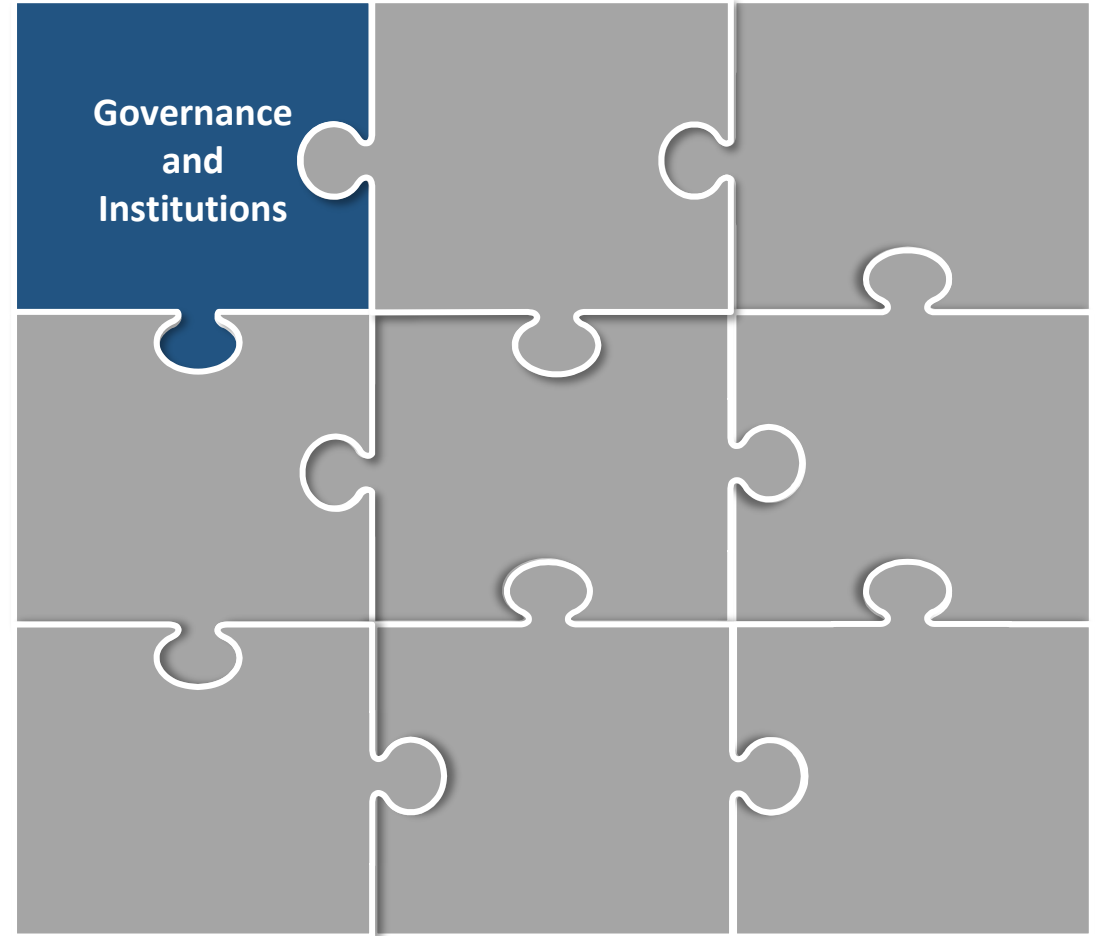
How can the 9 strategic pathways of the IGIF help us here in the U.S.?



Strategic Pathway 1

Governance and Institutions Elements

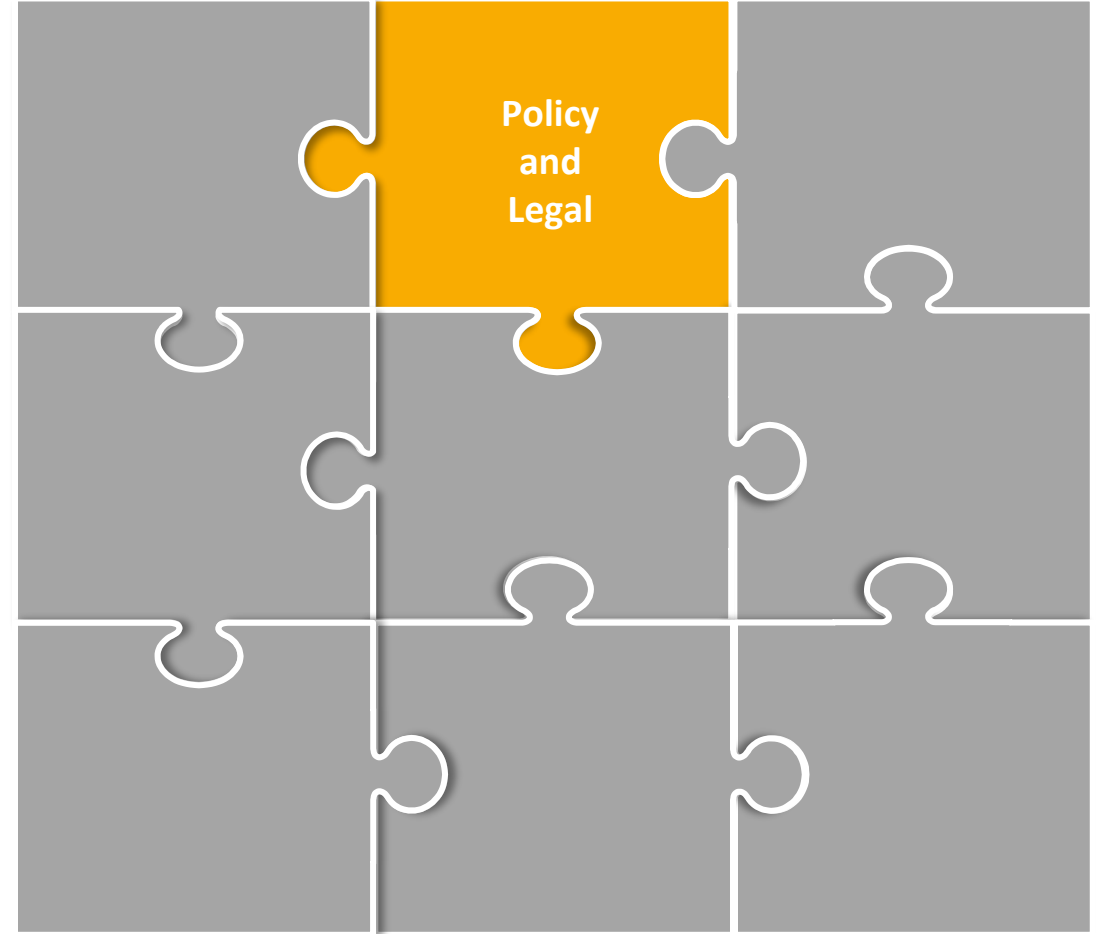
- Leadership
- Governance Model
- Institutional Structures
- Value Proposition



Strategic Pathway 2

Policy and Legal Elements

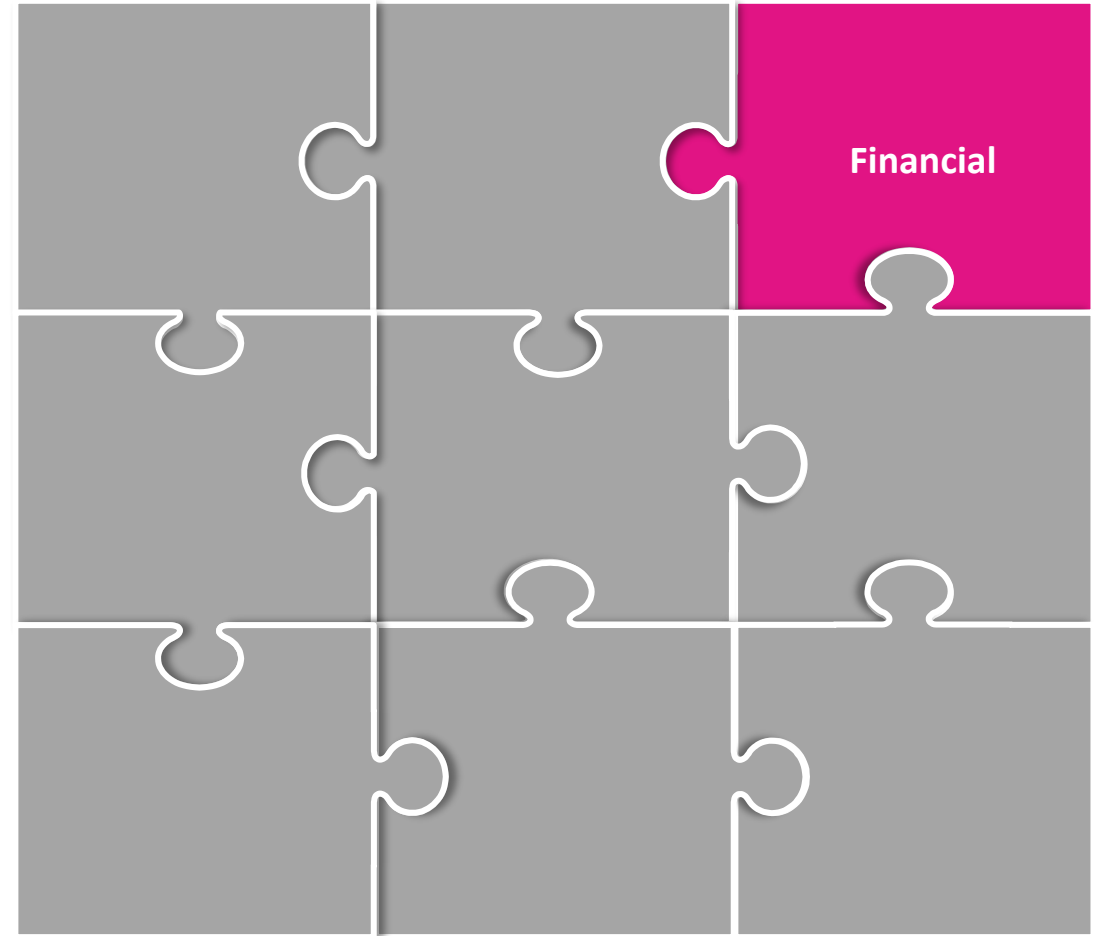
- Legislation
- Data Protection and Licensing
- Norms, Policies, Guides
- Implementation and Accountability



Strategic Pathway 3

Financial Elements

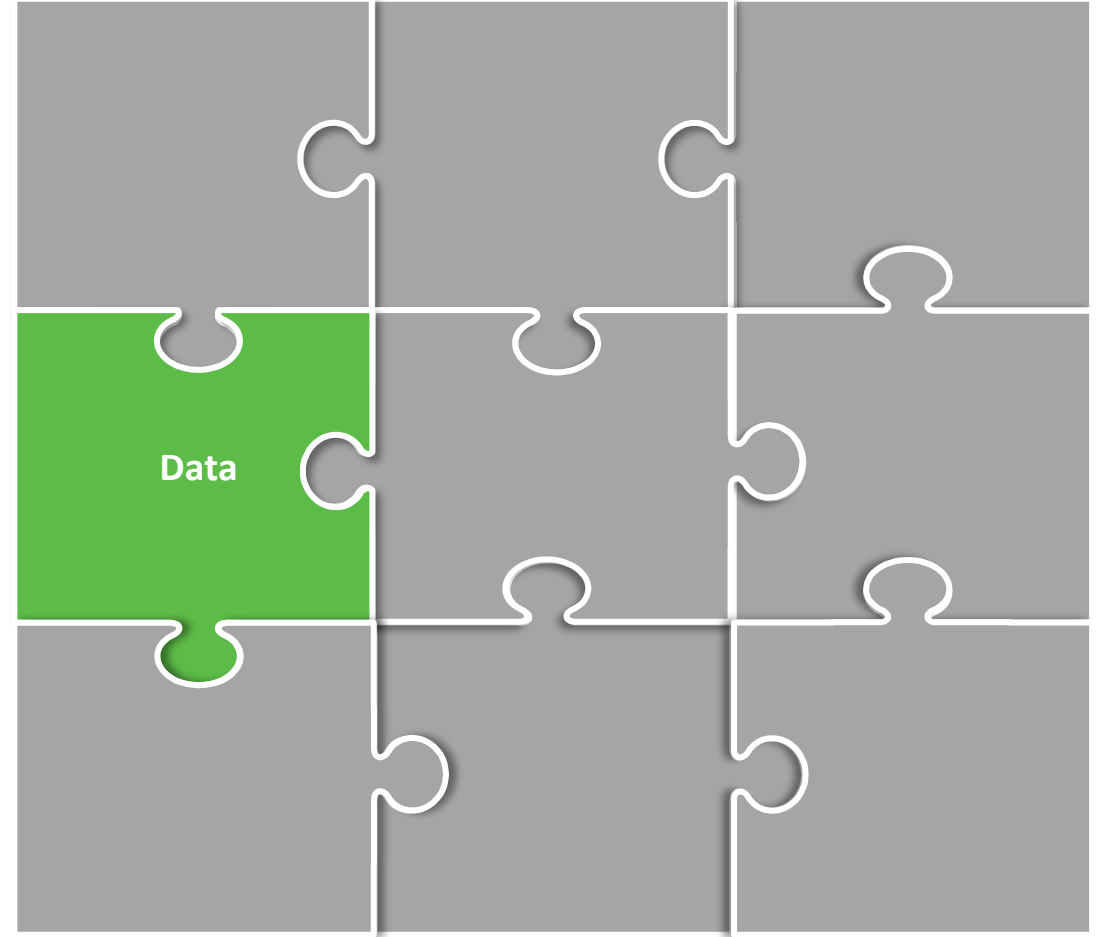
- Business Model
- Opportunities
- Investment
- Benefits Realization



Strategic Pathway 4

Data Elements

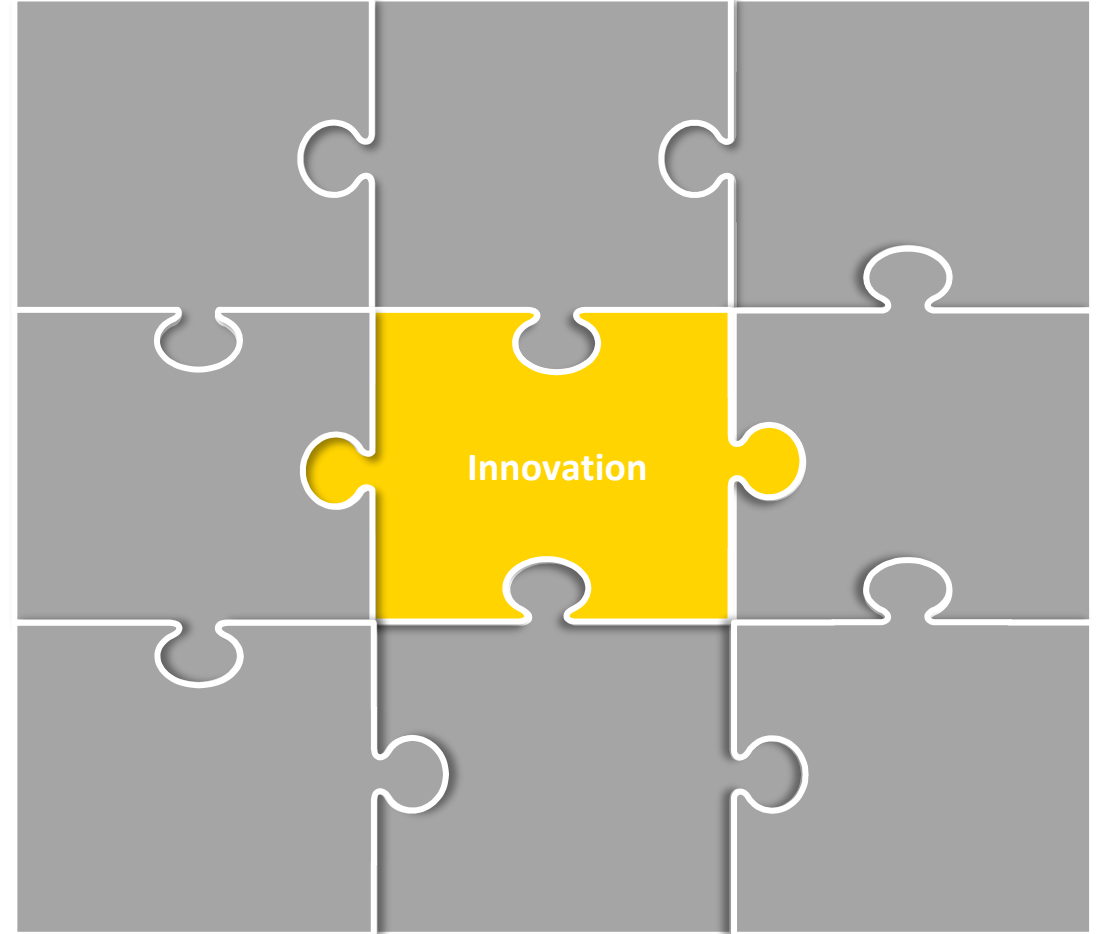
- Data Themes
- Custodianship, Acquisition, and Management
- Data Supply Chains
- Data Curation and Delivery



Strategic Pathway 5

Innovation Elements

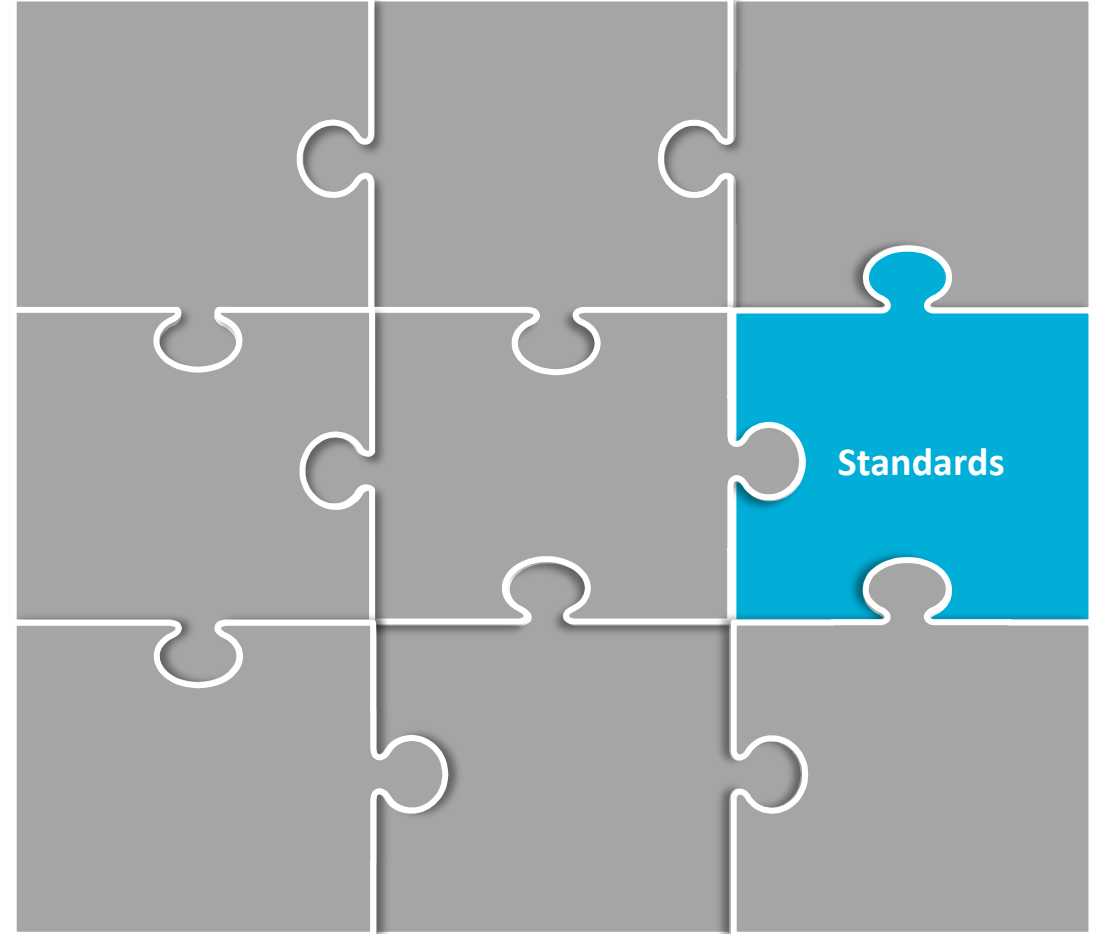
- Technological Advances
- Innovation and Creativity
- Process Improvements
- Bridging the geospatial Digital Divide



Strategic Pathway 6

Standards Elements

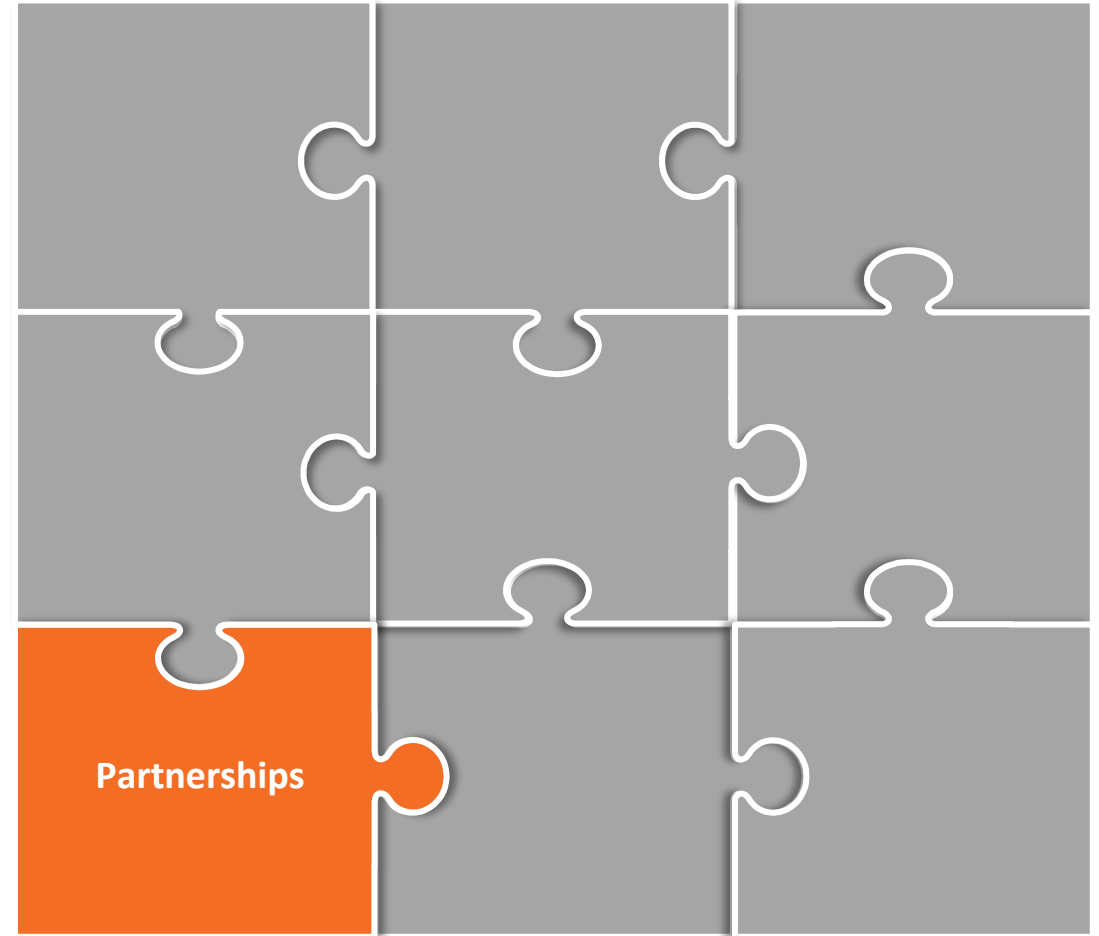
- Data Interoperability
- Legal Interoperability
- Semantic Interoperability
- Technical Interoperability



Strategic Pathway 7

Partnership Elements

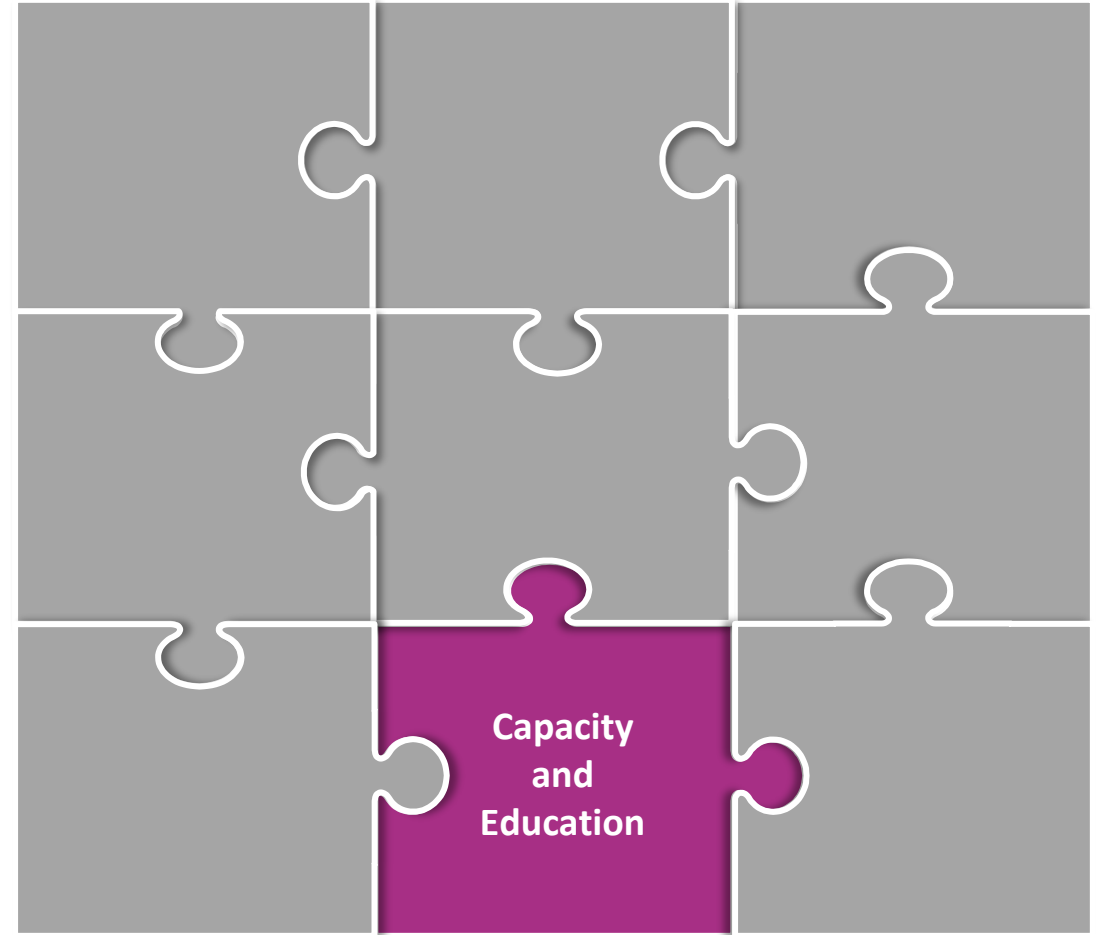
- Cross-sector and Interdisciplinary Cooperation
- Private Sector and Academia Collaboration
- Community Participation
- International Collaboration



Strategic Pathway 8

Capacity and Education Elements

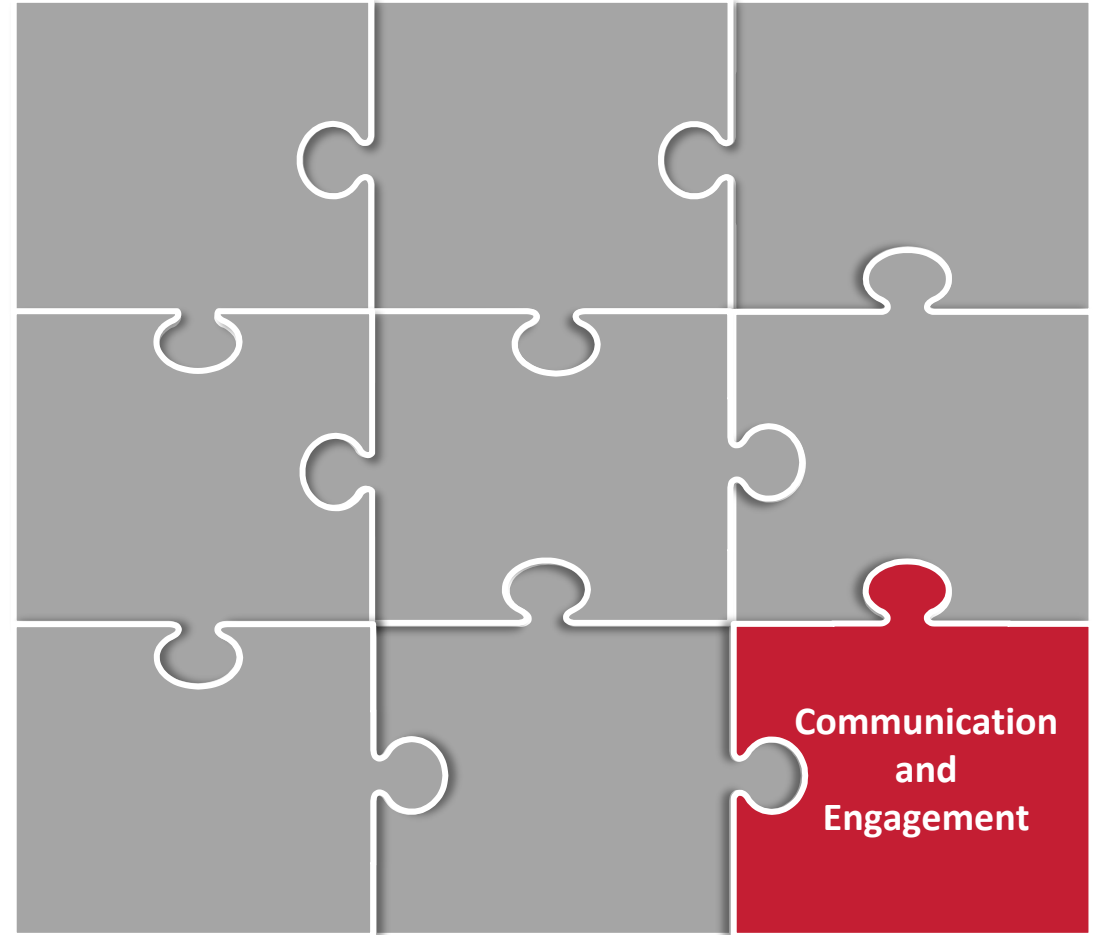
- Awareness
- Formal Education
- Professional Training
- Entrepreneurship



Strategic Pathway 9

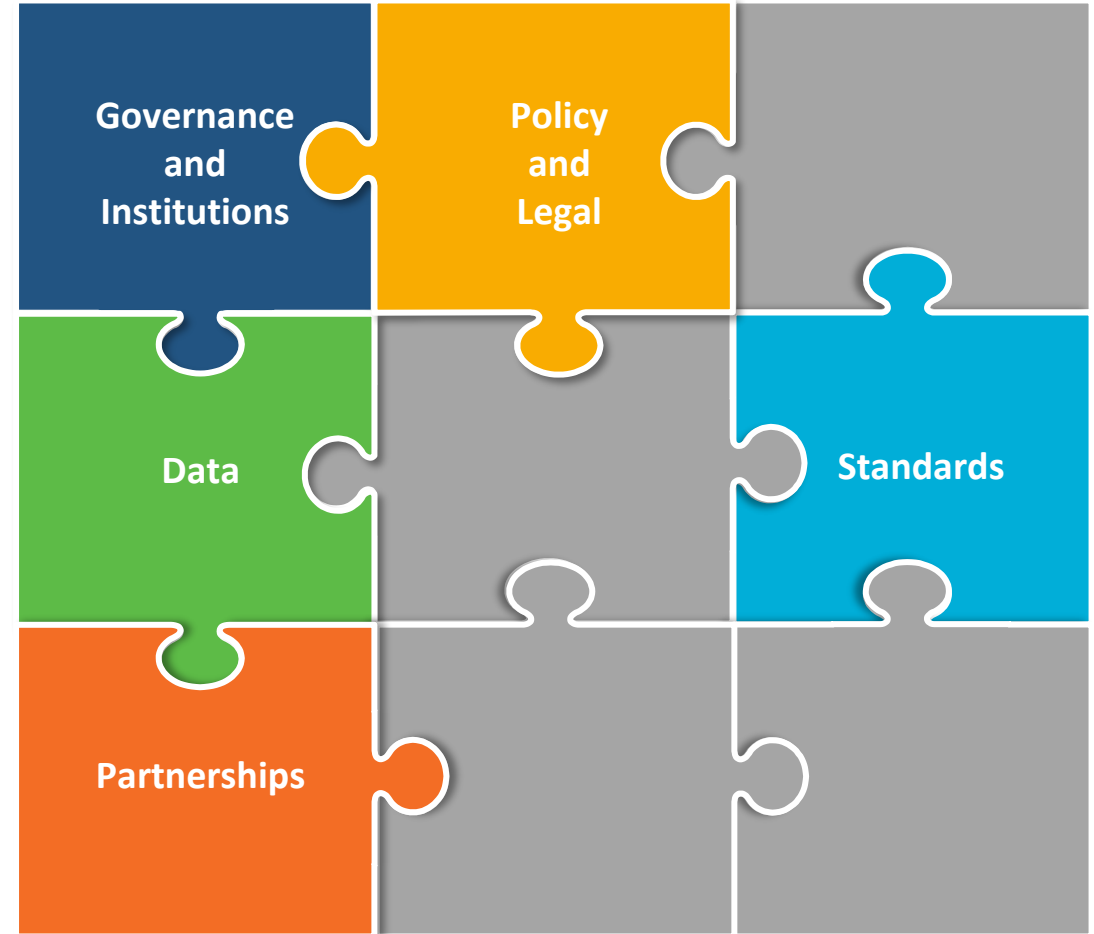
Communication and Engagement Elements

- Stakeholder and User Engagement
- Strategic Messaging
- Strategy, Plans and Methods
- Monitoring and Evaluation



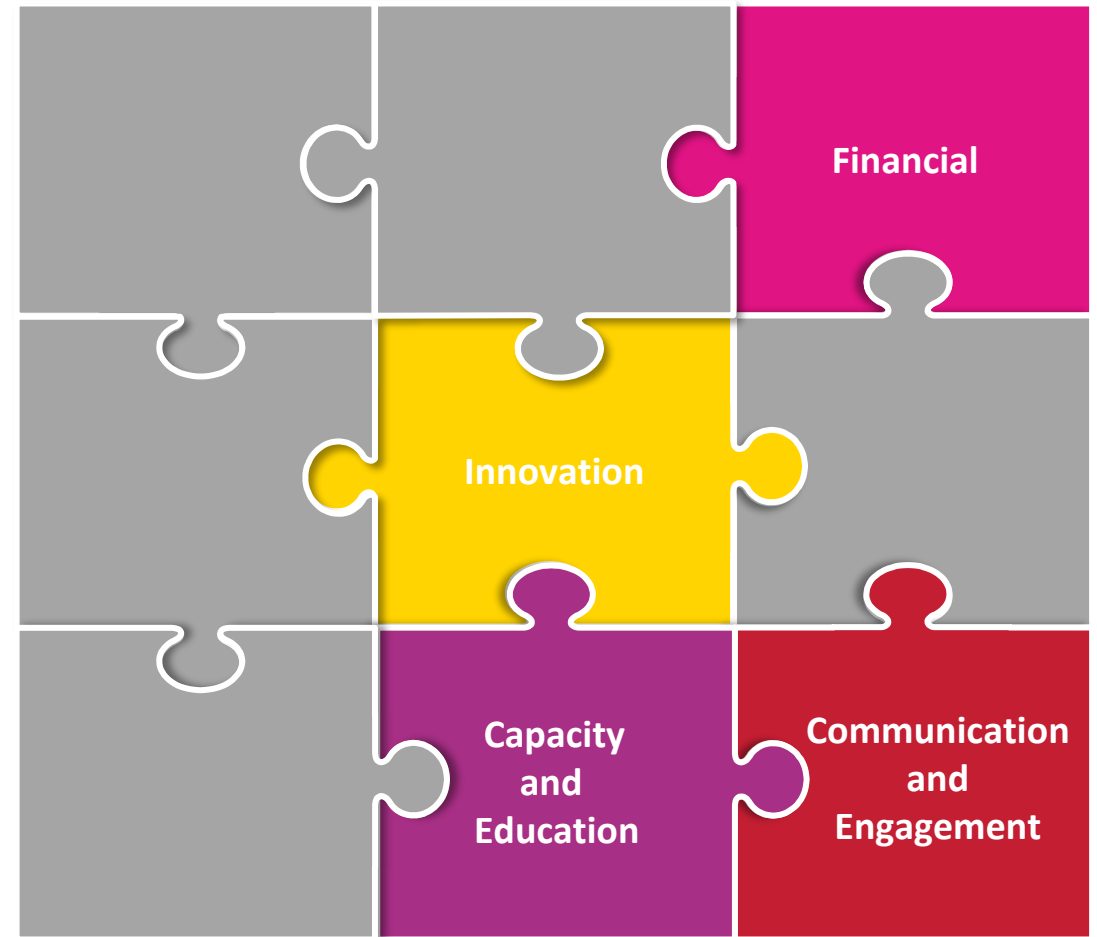
Existing Geospatial Information Management

- Foundational elements of geospatial information management in U.S.
- Primarily focused on five key areas
- Current elements map to five IGIF Strategic Pathways
- Opportunities for improvement

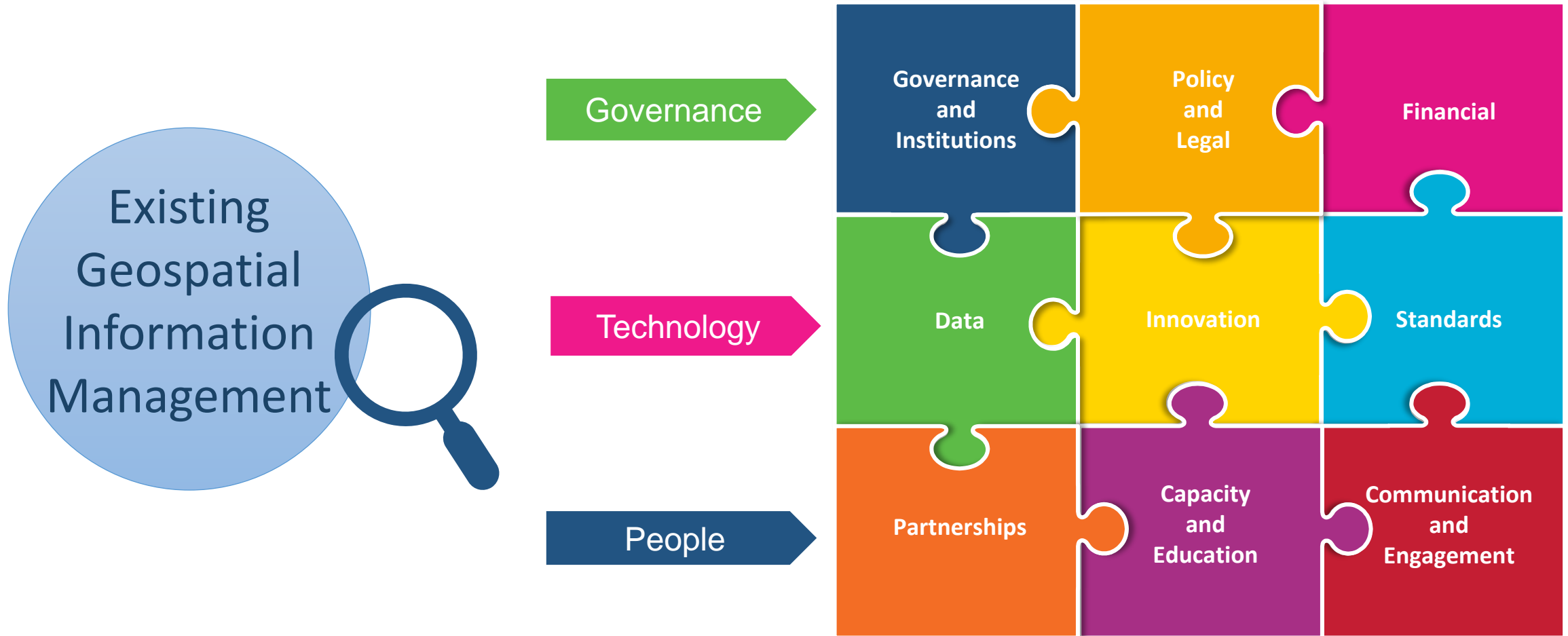


Advancing Geospatial Information Management

- Enhance effectiveness of geospatial information management
- Consider four additional IGIF Strategic Pathways
- A more advanced approach to geospatial information management



Comprehensive Geospatial Information Management





Thank You!

Questions?

